

CLASSES AND PROPERTIES OF HUMAN ANTIBODIES

Annual Report

February 1977

DTIC

AUG 1 8 1981

H

bу

Bernard B. Levine, M. D.

Supported by

US Army Medical Research and Development Command Fort Detrick, Frederick, Maryland 21701

Contract No. DAMD 17-74-C-4070

New York University School of Medicine New York, New York 10016

Approved for public release; distribution unlimited

The findings in this report are not to be construed as an official Department of the Army position unless so designated by other authorized documents.

Classes and Properties of Human Antibodies. Annual Report. March 16 - Februs 177 Febroraling orac report number. Antibodies. Antib	1. REPORT NUMBER		1. 1. RESTPIENT'S CALALOG NUMBER
Classes and Properties of Human Antibodies. Classes and Properties of Human Antibodies. Annual Report. Annual Report. Annual Report. 7. AUTHOR(s) Bernard B., Levine M. D. 3. PERFORMING ORG. REPORT HUMBER 7. AUTHOR(s) Bernard B., Levine M. D. 3. PERFORMING ORGANIZATION NAME AND ADDRESS New York University School of Medicine New York, New York 10016 11. CONTROLLING OFFICE NAME AND ADDRESS 12. MONITORING AGENCY NAME & ADDRESS 13. MONITORING AGENCY NAME & ADDRESS(II different from Controlling Office) 14. MONITORING AGENCY NAME & ADDRESS(II different from Controlling Office) 15. DISTRIBUTION STATEMENT (of this Report) Approved for public release; distribution unlimited. 16. DISTRIBUTION STATEMENT (of this Report) 17. DISTRIBUTION STATEMENT (of this abstract entered in Block 20, if different from Report) 18. SUPPLEMENTARY NOTES Accession of Particles on reverse side if necessary and identity by block number) Accession of Particles on Particles on Interest on Identity by block number) Accession of Particles on Particles on Interest on Identity by block number) Accession of Particles on Particles on Interest on Identity by block number) Accession of Particles on Particles on Identity on Identity by block number) Accession of Particles on Interest of Interest on Identity by block number) Accession of Particles on Interest on Identity on Identity by block number) ACCESSION OF The Identification on Identity on Identity on Identity on Identity on Identify on Identif		AD-A10316	11 9/
March 16 - Pebenne 1976 8. PERFORMING ORG. REPORT HUMBER 7. AUTHOR(2) Bernard B. Levine M. D. 10. PERFORMING ORG. REPORT HUMBER 11. CONTRACT OR GRANT NUMBER(2) 12. Separate B. Levine M. D. 13. PERFORMING ORG. REPORT HUMBER 14. GONTRACT OR GRANT NUMBER(2) 15. PERFORMING ORG. REPORT HUMBER 16. PERFORMING ORG. REPORT HUMBER 17. DAMD 17-74-C-4970 18. SECURITY CLASS. 19. PERFORMING ORG. REPORT HUMBER 19. PERFORMING ORG. REPORT HUMBER 10. PROGRAM ELEMENT, PROJECT. TASK 10. PROGRAM ELEMENT, PROJECT. TASK 11. CONTROLLING OFFICE NAME AND ADDRESS 11. CONTROLLING OFFICE NAME AND ADDRESS 12. METORITY CLASS. 13. NUMBER OF PAGES 4 pages 14. MONITORING AGENCY NAME & ADDRESS(1) dillerent from Controlling Office) 15. SECURITY CLASS. (of this report) 16. DISTRIBUTION STATEMENT (of this abstract entered in Block 20, If dillerent from Report) 17. DISTRIBUTION STATEMENT (of this abstract entered in Block 20, If dillerent from Report) 18. SUPPLEMENTARY NOTES 19. KEY WORDS (Continue on reverse side If necessary and identity by block number) 19. KEY WORDS (Continue on reverse side If necessary and identity by block number) 19. KEY WORDS (Continue on reverse side If necessary and identity by block number) 19. ADDITIONAL TO THE PROPERTY OF THE PROPERTY O	4. TITLE (and Subtitle)		S. TYPE OF REPORT & PERIOD COVERED
7. AUTHOR(s) Bernard B. Levine M. D. 9. PERFORMING ORG GRANT NUMBER(s) New York University School of Medicine New York, New York 10016 11. CONTRACT OR GRANT NUMBER(s) 10. PROGRAM ELEMENT, PROJECT, TASK REA & WORK UNIVERSITY SCHOOL OF Medicine New York, New York 10016 11. CONTRACT OR GRANT NUMBER(s) 12. PROGRAM ELEMENT, PROJECT, TASK REA & WORK UNIVERSITY SCHOOL OF MEDICINE AND ADDRESS 13. MEDITAL SECURITY CLASS (1102A 14. MONITORING AGENCY NAME A ADDRESS(I different from Controlling Office) 15. DISTRIBUTION STATEMENT (of this Report) Approved for public release; distribution unlimited. 17. DISTRIBUTION STATEMENT (of this abstract entered in Block 20, If different from Report) 18. SUPPLEMENTARY NOTES 19. REY WORDS (Continue on reverse side if necessary and Identity by block number) Atopy; Allergy Availability Codes 19. ABSTRACT (Continue on reverse side if necessary and Identity by block number) Availability Codes 11. AND ADDRESS (Continue on reverse side if necessary and Identity by block number) Availability Codes 12. PERFORMING ORG GRANT NUMBER(organt) 13. MET WORDS (Continue on reverse side if necessary and Identity by block number) 14. ADSTRACT (Continue on reverse side if necessary and Identity by block number) 15. ADSTRACT (Continue on reverse side if necessary and Identity by block number) 16. ADSTRACT (Continue on reverse side if necessary and Identity by block number) 17. AUTHORITY NUMBER OF TABLET TO THE TABLET	Classes and Properties of Hu	man Antibodies	
Performing organization name and address New York University School of Medicine New York, New York 10016 11. Controlling office name and address 12. METERISTIC Control of Medicine New York, New York 10016 12. Signature of the second and Development Command Fort Detrick, Frederick, Maryland 21701 13. Number of Pages 14. Monitoring agency name a address(if different from Controlling Office) 15. Distribution statement (of this abstract entered in Block 20, if different from Report) 16. Distribution statement (of this abstract entered in Block 20, if different from Report) 17. Distribution statement (of this abstract entered in Block 20, if different from Report) 18. REY WORDS (Continue on reverse side if necessary and identify by block number) 19. REY WORDS (Continue on reverse side if necessary and identify by block number) 20. ABSTRACT (Continue on reverse side if necessary and identify by block number) 21. Application 22. Application of the second of the	V :		March 1076 - February 1077
Bernard B. Levine M. D. 3. PERFORMING ORGANIZATION NAME AND ADDRESS New York University School of Medicine New York, New York 10016 11. CONTROLLING OFFICE NAME AND ADDRESS US Army Medical Research and Development Command Fort Detrick, Frederick, Maryland 21701 14. MONITORING AGENCY NAME & ADDRESS(II dillerent from Controlling Office) 15. NAME OF PAGES 4 pages 16. DISTRIBUTION STATEMENT (of this Report) Approved for public release; distribution unlimited. 17. DISTRIBUTION STATEMENT (of this abstract enlered in Block 20, II different from Report) 18. SUPPLEMENTARY NOTES 19. KEY WORDS (Continue on reverse side II necessary and identity by block number) Atopy; Allergy 30. ABSTRACT (Continue on reverse side II necessary and identity by block number) By Unclassified Arogensien Page Unclassified 19. KEY WORDS (Continue on reverse side II necessary and identity by block number) Atopy; Allergy 30. ABSTRACT (Continue on reverse side II necessary and identity by block number) Availability Codes			6. PERFORMING ORG. REPORT NUMBER
Bernard B. Levine M. D. 3. PERFORMING ORGANIZATION NAME AND ADDRESS New York University School of Medicine New York, New York 10016 11. CONTROLLING OFFICE NAME AND ADDRESS US Army Medical Research and Development Command Fort Detrick, Frederick, Maryland 21701 14. MONITORING AGENCY NAME & ADDRESS(II dillerent from Controlling Office) 15. NAME OF PAGES 4 pages 16. DISTRIBUTION STATEMENT (of this Report) Approved for public release; distribution unlimited. 17. DISTRIBUTION STATEMENT (of this abstract enlered in Block 20, II different from Report) 18. SUPPLEMENTARY NOTES 19. KEY WORDS (Continue on reverse side II necessary and identity by block number) Atopy; Allergy 30. ABSTRACT (Continue on reverse side II necessary and identity by block number) By Unclassified Arogensien Page Unclassified 19. KEY WORDS (Continue on reverse side II necessary and identity by block number) Atopy; Allergy 30. ABSTRACT (Continue on reverse side II necessary and identity by block number) Availability Codes	7. AUTHOR(a)		A. GONTRACT OR GRANT NUMBER(A)
9. PERFORMING ORGANIZATION NAME AND ADDRESS New York University School of Medicine New York, New York 10016 11. CONTROLLING OFFICE NAME AND ADDRESS US Army Medical Research and Development Command Fort Detrick, Frederick, Maryland 21701 12. REPORT DATE 13. NUMBER OF PAGES 4 pages 14. MONITORING AGENCY NAME & ADDRESS(II dillerent from Controlling Office) 15. DISTRIBUTION STATEMENT (at this Report) 16. DISTRIBUTION STATEMENT (at this Report) 17. DISTRIBUTION STATEMENT (at this selected in Block 20, it different from Report) 18. SUPPLEMENTARY NOTES 19. KEY WORDS (Continue on reverse side if necessary and identity by block number) Atopy; Allergy 20. ARSTRACT (Continue on reverse side if necessary and identity by block number) 21. AND ARSTRACT (Continue on reverse side if necessary and identity by block number) 22. ARSTRACT (Continue on reverse side if necessary and identity by block number) 23. ARSTRACT (Continue on reverse side if necessary and identity by block number) 24. AND ARSTRACT (Continue on reverse side if necessary and identity by block number) 25. ARSTRACT (Continue on reverse side if necessary and identity by block number) 26. ARSTRACT (Continue on reverse side if necessary and identity by block number) 27. AND ARSTRACT (Continue on reverse side if necessary and identity by block number) 28. AND ARSTRACT (Continue on reverse side if necessary and identity by block number) 29. AND ARSTRACT (Continue on reverse side if necessary and identity by block number) 30. ARSTRACT (Continue on reverse side if necessary and identity by block number) 31. AND ARSTRACT (Continue on reverse side if necessary and identity by block number) 32. ARSTRACT (Continue on reverse side if necessary and identity by block number) 33. AND ARSTRACT (Continue on reverse side if necessary and identity by block number) 34. AND ARSTRACT (Continue on reverse side if necessary and identity by block number) 35. AND ARSTRACT (Continue on reverse side if necessary and identity by block number) 36. AND ARSTRACT (Continue on reverse side if ne			
New York University School of Medicine New York, New York 10016 11. CONTROLLING OFFICE NAME AND ADDRESS US Army Medical Research and Development Command Fort Detrick, Frederick, Maryland 21701 12. MEPORT DATE 13. NUMBER OF PAGES 4 Pages 14. MONITORING AGENCY NAME & ADDRESS(II diliterent from Controlling Office) 15. DISTRIBUTION STATEMENT (of this Report) Approved for public release; distribution unlimited. 16. DISTRIBUTION STATEMENT (of this abstract entered in Block 20, II diliterent from Report) 17. DISTRIBUTION STATEMENT (of this abstract entered in Block 20, II diliterent from Report) 18. SUPPLEMENTARY NOTES 19. KEY WORDS (Continue on reverse side II necessary and Identity by block number) Atopy; Allergy 20. ABSTRACT (Continue on reverse side II necessary and Identity by block number) Availability Codes 11. AREA WORK WORDS (Continue on reverse side II necessary and Identity by block number) Availability Codes 12. Perograph (12. New York 12. New York	Bernard B. Levine, M. D.		DAMD 17-74-C-4979
New York University School of Medicine New York, New York 10016 11. CONTROLLING OFFICE NAME AND ADDRESS US Army Medical Research and Development Command Fort Detrick, Frederick, Maryland 21701 12. MEPORT DATE 13. NUMBER OF PAGES 4 Pages 14. MONITORING AGENCY NAME & ADDRESS(II diliterent from Controlling Office) 15. DISTRIBUTION STATEMENT (of this Report) Approved for public release; distribution unlimited. 16. DISTRIBUTION STATEMENT (of this abstract entered in Block 20, II diliterent from Report) 17. DISTRIBUTION STATEMENT (of this abstract entered in Block 20, II diliterent from Report) 18. SUPPLEMENTARY NOTES 19. KEY WORDS (Continue on reverse side II necessary and Identity by block number) Atopy; Allergy 20. ABSTRACT (Continue on reverse side II necessary and Identity by block number) Availability Codes 11. AREA WORK WORDS (Continue on reverse side II necessary and Identity by block number) Availability Codes 12. Perograph (12. New York 12. New York			
New York, New York 10016 11. CONTROLLING OFFICE NAME AND ADDRESS US Army Medical Research and Development Command Fort Detrick, Frederick, Maryland 21701 13. Number of Pages 4 pages 14. MONITORING AGENCY NAME & ADDRESS(II different from Controlling Office) 15. SECURITY CLASS. (of this report) Unclassified 15. DECLASSIFICATION/DownGRADING 16. DISTRIBUTION STATEMENT (of this abstract entered in Block 20, if different from Report) 17. DISTRIBUTION STATEMENT (of this abstract entered in Block 20, if different from Report) 18. SUPPLEMENTARY NOTES 19. KEY WORDS (Continue on reverse side if necessary and identify by block number) Atopy; Allergy 20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Availability Codes	9. PERFORMING ORGANIZATION NAME AND AD	DRESS	10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
New York, New York 10016 11. CONTROLLING OFFICE NAME AND ADDRESS US Army Medical Research and Development Command Fort Detrick, Frederick, Maryland 21701 13. Number of Pages 4 pages 14. MONITORING AGENCY NAME & ADDRESS(II different from Controlling Office) 15. SECURITY CLASS. (of this report) Unclassified 15. DECLASSIFICATION/DownGRADING 16. DISTRIBUTION STATEMENT (of this abstract entered in Block 20, if different from Report) 17. DISTRIBUTION STATEMENT (of this abstract entered in Block 20, if different from Report) 18. SUPPLEMENTARY NOTES 19. KEY WORDS (Continue on reverse side if necessary and identify by block number) Atopy; Allergy 20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Availability Codes	New York University School of	Medicine	, , , , , , , , , , , , , , , , , , , ,
For Detrick, Frederick, Maryland 21701 13. Number of Pages 4 pages 14. MONITORING AGENCY NAME & ADDRESS(II dillerent from Controlling Office) 15. SECURITY CLASS. (of this report) Unclassified 15. DESCLASSIFICATION/DOWNGRADING 16. DISTRIBUTION STATEMENT (of this abstract entered in Block 20, II dillerent from Report) 17. DISTRIBUTION STATEMENT (of this abstract entered in Block 20, II dillerent from Report) 18. SUPPLEMENTARY NOTES 19. KEY WORDS (Continue on reverse side if necessary and identity by block number) Atopy; Allergy 20. ABSTRACT (Continue on reverse side II necessary and identity by block number) Price Total Unclassified 15. SECURITY CLASS. (of this report) Un			/6/3M1611Ø2BSØ1/00.015
For Detrick, Frederick, Maryland 21701 13. Number of Pages 4 pages 14. MONITORING AGENCY NAME & ADDRESS(II dillerent from Controlling Office) 15. SECURITY CLASS. (of this report) Unclassified 15. DESCLASSIFICATION/DOWNGRADING 16. DISTRIBUTION STATEMENT (of this abstract entered in Block 20, II dillerent from Report) 17. DISTRIBUTION STATEMENT (of this abstract entered in Block 20, II dillerent from Report) 18. SUPPLEMENTARY NOTES 19. KEY WORDS (Continue on reverse side if necessary and identity by block number) Atopy; Allergy 20. ABSTRACT (Continue on reverse side II necessary and identity by block number) Price Total Unclassified 15. SECURITY CLASS. (of this report) Un	11. CONTROLLING OFFICE NAME AND ADDRESS		The commence of the second
Fort Detrick, Frederick, Maryland 21701 13. NUMBER OF PAGES 4 pages 14. MONITORING AGENCY NAME & ADDRESS(II dillorent from Controlling Office) 15. SECURITY CLASS. (of this report) Unclassified 15. DESTRIBUTION STATEMENT (of this Report) Approved for public release; distribution unlimited. 17. DISTRIBUTION STATEMENT (of this abstract entered in Block 20, It different from Report) 18. SUPPLEMENTARY NOTES 19. KEY WORDS (Continue on reverse side if necessary and identify by block number) Atopy; Allergy 20. ABSTRACT (Continue on reverse side if measuremy and identify by block number) Availability Codes 19. Audiability Codes 19. Audiability Codes	US Army Medical Research and	Development Command	
14. MONITORING AGENCY NAME & ADDRESS(if different from Controlling Office) 15. SECURITY CLASS. (of this report) Unclassified 15. DECLASSIFICATION/DOWNGRADING 16. DISTRIBUTION STATEMENT (of this abetract entered in Block 20, if different from Report) 17. DISTRIBUTION STATEMENT (of this abetract entered in Block 20, if different from Report) 18. SUPPLEMENTARY NOTES 19. KEY WORDS (Continue on reverse aids if necessary and identify by block number) Atopy; Allergy 19. MEY WORDS (Continue on reverse aids if necessary and identify by block number) By Distribution/ Availability Codes 11. Availability Codes	Fort Detrick, Frederick, Mary	land 21701	
Unclassified 15a. DECLASSIFICATION/DOWNGRADING 16. DISTRIBUTION STATEMENT (of this abstract entered in Block 20, it different from Report) 17. DISTRIBUTION STATEMENT (of this abstract entered in Block 20, it different from Report) 18. SUPPLEMENTARY NOTES 19. KEY WORDS (Continue on reverse side if necessary and identify by block number) Accession for NOTES Chilat POIC T'S Unandomored Justification By Distribution/ Availability Codes Availability Codes			
18. DISTRIBUTION STATEMENT (of this Report) Approved for public release; distribution unlimited. 17. DISTRIBUTION STATEMENT (of this abstract entered in Block 20, it different from Report) 18. SUPPLEMENTARY NOTES Accession For H71S CD181 19. KEY WORDS (Continue on reverse side it necessary and identity by block number) Atopy; Allergy 20. ABSTRACT (Continue on reverse side if necessary and identity by block number) Availability Codes Leaf and/or	14. MONITORING AGENCY NAME & ADDRESS(II	different from Controlling Office)	15. SECURITY CLASS. (of this report)
18. DISTRIBUTION STATEMENT (of this Report) Approved for public release; distribution unlimited. 17. DISTRIBUTION STATEMENT (of this abstract entered in Block 20, it different from Report) 18. SUPPLEMENTARY NOTES Accession For H71S CD181 19. KEY WORDS (Continue on reverse side it necessary and identity by block number) Atopy; Allergy 20. ABSTRACT (Continue on reverse side if necessary and identity by block number) Availability Codes Leaf and/or	(10) 41	<i>!</i>	Implaced fied
Approved for public release; distribution unlimited. 17. DISTRIBUTION STATEMENT (of the abetract entered in Block 20, if different from Report) 18. SUPPLEMENTARY NOTES Accession For HTIS Child Prince Continue on reverse aids if necessary and identify by block number) Atopy; Allergy Atopy; Allergy By	1 (12) 7		I .
Approved for public release; distribution unlimited. 17. DISTRIBUTION STATEMENT (of the abetract entered in Block 20, it different from Report) 18. SUPPLEMENTARY NOTES 19. KEY WORDS (Continue on reverse side it necessary and identity by block number) Atopy; Allergy 20. ABSTRACT (Continue on reverse side if necessary and identity by block number) By Distribution/ Availability Codes 1 and/or			SCHEDULE
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report) 18. SUPPLEMENTARY NOTES Accession For RFIS Child Price Continue on reverse side if necessary and identify by block number) Atopy; Allergy Atopy; Allergy By Distribution/ Availability Codes 1	16. DISTRIBUTION STATEMENT (of this Report)		
18. SUPPLEMENTARY NOTES Accession For NOTES Chiki 19. KEY WORDS (Continue on reverse side if necessary and identity by block number) Atopy; Allergy By	(7) 00		
Accession For BTIS Child Por BTIS Ch			
19. KEY WORDS (Continue on reverse side if necessary and identity by block number) Atopy; Allergy By	18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identity by block number) Atopy; Allergy By			Accession For
Atopy; Allergy By 20. ABSTRACT (Continue on reverse aids If magazinary and identify by block number) Availability Codes Availability Codes			
Atopy; Allergy By 20. ABSTRACT (Continue on reverse side H responsery and identity by block number) Availability Codes 1.11 and/or	19. KEY WORDS (Continue on reverse side if neces	seary and identify by block number	1
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Availability Codes Availability codes			
20. ABSTRACT (Continue on reverse aids if rescoreacy and identify by block number) Availability Codes 1. 11 and/or	Atopy; Allergy		: Jaburacation
20. ABSTRACT (Continue on reverse aids if rescoreacy and identify by block number) Availability Codes 1. 11 and/or			D
Availability Codes			
i til and/or	20. ABSTRACT (Continue on reverse side if reaces	eary and identify by block number)	
A			
A			200101
	1		a

DD 1 JAN 73 1473 EDITION OF 1 NOV 85 IS OBSOLETE

SECURITY CLASSIFICATION OF THIS PAGE (When Date Entered)

CLASSES AND PROPERTIES OF HUMAN ANTIBODIES

Bernard B. Levine, M.D.

Dr. Levine was on leave of absence. However, 4 hours per week were devoted to directing the Allergy Clinic at Bellevue Hospital.

Publications

- 1. Altman, R. and Levine, B.B. J. Allergy and Clinical Immunology 59:120-127, 1977.
- 2. Levine, B.B. Immunological tests for hypersensitivity reactions to drugs. Manual of Clinical Immunology, 1977.

12 Copies

Director (ATTN: SGRD-UWZ-AG)
Walter Reed Army Institute of
Research
Walter Reed Army Medical Center
Washington, D. C. 20012

4 Copies

HQDA (SGRD-SI) Fort Detrick Frederick, MD 21701

12 Copies

Defense Documentation Center ATTN: DDC-DDA Cameron Station Alexandria, Virginia 22314

1 Сору

Dean School of Medicine Uniformed Services University of the Health Sciences 4301 Jones Bridge Road Bethesda, Maryland 20014

1 Copy

Superintendent Academy of Health Sciences, US Army ATTN: AHS-COM Fort Sam Houston, Texas 78234

